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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/997,257

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Thomas Kragh Christensen

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PATENT DEPARTMENT
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EXAMINER

AMINI, JAVID A

ART UNIT

PAPER NUMBER

2672

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/997,257

Applicant(s)

CHRISTENSEN ET AL.

Examiner

Javid A Amini

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 19-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/7/2005 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14 and 19-24 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-2 recite the limitation "a pictorial representation" in claim 1 sections c and f" in claim 2 sections b and e". There is insufficient antecedent basis for this limitation in the claim.

Claim 9 recites the limitation "a graphical representation page 7 lines 3 and 10-11". There is insufficient antecedent basis for this limitation in the claim.

Claim 22 recites the limitation "a selected option/s" on page 9 lines 14 and 17". There is insufficient antecedent basis for this limitation in the claim.

Claim 23 recites the limitation "the user selected variants" on page 9 line 25". There is insufficient antecedent basis for this limitation in the claim.

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Claim 24 recites the limitation "the user a selection" on page 10 line 10". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 9-14 and 19-24 rejected under 35 U.S.C. 102(b) as being anticipated by Yi Yan, S. Ramaswamy (hereinafter refers as YiYan); Software and Data Engineering Laboratory, School of Computer and Applied Sciences Georgia Southwestern State University, Americus, GA 31709. dated 1998.

1. Claim 1.

"A method of configuring a medical product, where the product is to be assembled from a plurality of components, each component being available in at least one variant, the method comprising the steps of:" YiYan in the abstract discloses an application of agent-based approaches to developing interactive, virtual environments for manufacturing assembly processes is explored and demonstrated in this publication. The overall work focus is on the investigation and integration of appropriate behavior specification mechanisms with virtual reality to build interactive virtual environments for dynamic online simulation based design of manufacturing systems, with the intent of designing intelligent and robust manufacturing control software. Examiner's interpretation: YiYan 's work can be configured for the medical products. YiYan on page 78, second column discloses that researchers in biology, medicine and other

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engineering areas are using virtual simulation techniques (examiner's interpretation: it is similar to the Applicant's presentation of a product) to investigate and prototype research applications without investing substantial resources into building actual prototype systems.

YiYan on page 79 discloses that objects (Examiner's interpretation: it can be a medical product. A computer considers as a medical product) in the system can be defined, both in structure and behavior, in close correspondence to real-world (Examiner's interpretation: equivalent to Applicant's physical appearance of a product) objects. Object reuse aids in the rapid development of new software elements. Object inheritance enables the creation of new objects and relationships with minimal effort. Object encapsulation provides the appropriate distinction between object boundaries and is effective in identifying and controlling the propagation of errors. It also helps to establish well-defined communication mechanisms and to set up data and process security features.

"a. presenting to a customer a first plurality of variants for a first component; b. receiving from the customer a selection of one of the variants for the first component; c. presenting to the customer a pictorial representation of the selected variant of the first component; d. presenting to the customer a second plurality of variants for a second component; e. receiving from the customer a selection of one of the variants for the second component; f. presenting to the customer a pictorial representation of the product with the customer selected variant of the first component and the customer selected variant of the second component, wherein the pictorial representation accurately portrays the physical appearance of a product configured with the customer selected variant so that when the customer purchases an actual product with the customer selected variants the actual product will have the same appearance as the pictorial

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representation presented to the customer;” YiYan in fig. 2 illustrates two parts “A” (Examiner’s interpretation: considers as Applicant claims in the claim language “a first component”) and “B” (Examiner’s interpretation: considers as Applicant claims in the claim language “a second component”) before assembly and a product “C” after assembly.

“g. graphically animating the assembling of the first and second selected variants of the first and second components to illustrate to the customer how the user configured device is to be assembled”, YiYan on page 78 under subject of “Introduction” discloses that the simulation is interactive and dynamic, thereby allowing for the interactive simulation of real-world situations.

2. Claims 2, 9 and 22-24.

The rejection of claim 1 applies to the rejection of claims 2, 9 and 22-24.

3. Claims 3, 11 and 14.

YiYan on page 78, under subject of “Introduction” discloses that virtual reality is a combination of technologies whose interfaces with the human user can so dominate one’s senses that the user intuitively interacts with the immersive and dynamic computed-generated environment

4. Claims 4, 10 and 12 .

YiYan on page 78, under subject of “Introduction” discloses that in virtual environments, real world objects are represented in detail as three-dimensional objects.

5. Claims 5, 6 and 13.

YiYan in fig. 4 illustrates the parts and the assembly from different view of operations (rotation, flip, pan and zooming). YiYan on page 79 in the first column second paragraph discloses that any tool used for simulation based systems design must support scaleable (Examiner’s interpretation: zoomable) hierarchy and minimal intrusion.

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6. Claims 19-21

The step of a computer program code is inherent in YiYan's work. YiYan on page 85 mentioned that algorithms deal with grasping and moving failures can be programmed into the software control mechanisms for the system, user induced failures may be effectively used in not only studying system responses, but also in studying user responses.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 8 and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over YiYan, and further in view of Saku Hieta; *Proceedings of the 1998 Winter Simulation Conference* D.J. Medeiros, E.F. Watson, J.S. Carson and M.S. Manivannan, eds.

7. Claims 7, 8 and 16.

YiYan is silent about a set of inventory data; however, Saku Hieta on page 324 first and second columns teaches the inventory management system and a process is driven by work-orders that can be based on a scheduled production plan. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Saku Hieta that is the supply chain model (see fig. 1 of Hieta) into YiYan's application of agent-based approaches to developing interactive, virtual environments for manufacturing assembly processes is explored and demonstrated in this paper. The overall research focus is on the investigation and integration of appropriate behavior specification mechanisms with virtual reality to build interactive virtual environments for dynamic online simulation based design of

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manufacturing systems, with the intent of designing intelligent and robust manufacturing control software. Specifically the design of virtual environments using an agent-based design framework, taking into account risks and uncertainties, while embedding domain-specific intelligence about system failures and breakdowns, is investigated. The results can be used to improve system design and it can effectively reduce product development cycle time.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javid A Amini whose telephone number is 571-272-7654. The examiner can normally be reached on 8-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 571-272-7664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Javid A Amini
Examiner
Art Unit 2672

Javid Amini


JEFFERY BRIER
PRIMARY EXAMINER